

### LISTING OF THE CLAIMS

Claims 9-11, 14-16, 19, and 22 are amended.

Claims 17 and 18 are cancelled.

Claims 9-11, 13-16, and 19-22 remain in the application.

1-8. (Cancelled)

9. (Currently Amended) In a distributed file system that stores encrypted files across multiple computers, a method comprising:

modifying one or more of the encrypted files;

computing a hash value of each modified encrypted file, one or more of the modified encrypted files comprising file data and a metadata stream that comprises a header and an indexing structure, the indexing structure comprising one or more hashes of the file and a structure to access the one or more hashes of the file;

collecting the hash values into a group;

computing a hash value of the group; and

digitally signing the hash value of the group of hash values.

10. (Currently Amended) A method as recited in claim 9, wherein ~~the modified encrypted file includes a metadata stream containing a header and an indexing structure, the indexing structure including hashes of the files and a structure to access the hashes of the files,~~ the computing a hash value of each modified encrypted file further comprises ~~comprising~~ deriving a hash of the header and at least part of the structure.

11. (Currently Amended) A method as recited in claim 9, wherein the ~~modified encrypted file includes a metadata stream~~ further comprises containing a header, per user information[[,]] and the indexing structure comprises an indexing tree, the indexing tree including the one or more hashes of the file[[s]], branch nodes to access the one or more hashes, and a root node, the computing a hash value of each modified encrypted file further comprising hashing as a single composite the header, the per user information, and the root node.

12. (Cancelled).

13. (Currently Amended) One or more computer readable storage media comprising computer-executable instructions that, when executed, perform the method as recited in claim 9.

14. (Currently Amended) One or more computer readable storage media comprising computer-executable instructions that, when executed, direct a computing device to:

modify individual files stored in a serverless distributed file system;

divide one or more of the files into a plurality of data blocks;

compute a hash value of each of the data blocks ~~modified file~~, one or more of the modified files comprising file data that includes the data blocks and a metadata stream that comprises a header and an indexing structure, the indexing structure comprising one or more hashes of the data blocks and a structure to access the one or more hashes of the data blocks;

collect the hash values into a group; and

digitally signing the group of hash values.

15. (Currently Amended) One or more computer readable storage media as recited in claim 14, wherein ~~the modified file includes a metadata stream containing a header and an indexing structure, the indexing structure including hashes of the files and a structure to access the hashes of the files~~, the storage media further comprises ~~comprising~~ computer-executable instructions that, when executed, direct a computing device to derive a hash of the header and at least part of the structure.

16. (Currently Amended) One or more computer readable storage media as recited in claim 14, wherein the ~~modified file includes a metadata stream~~ further comprises ~~containing a header~~, per user information[[,]] and the indexing structure comprises an indexing tree, the indexing tree including comprising the one or

more hashes of the data blocks ~~files~~, branch nodes to access the one or more hashes, and a root node, the storage media further comprising computer-executable instructions that, when executed, direct a computing device to hash as a single composite the header, the per user information, and the root node.

17. (Cancelled)

18. (Cancelled)

19. (Currently Amended) A method comprising:

storing representations of modifications made to multiple files stored in a distributed file system such that each said modification has a corresponding said representation, one or more of the multiple files comprising a metadata stream that comprises a header and an indexing structure, the indexing structure comprising one or more of the representations of modifications made to the file and a structure to access the one or more representations;

storing a representation of a collection of the representations of the modifications; and

storing a single digital signature covering at least part of the representations to indicate that the modifications were made by a user with the signature, the single digital signature providing file authentication information for each of the multiple files.

20. (Previously Presented) A method recited in claim 19, wherein the representations comprise hashes of data in each file that is affected by the modifications.

21. (Previously Presented) A method recited in claim 19, wherein the representation of the collection comprises a hash of the representations of the modifications.

22. (Currently Amended) One or more computer readable storage media as recited in claim 17, wherein the representation of the collection comprises a hash of the representations of the modifications.